

**UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98055-4056**

In the matter of the petition of

Hollingsead International, Inc.

for an exemption from §§ 25.855(a),
25.857(e), & 25.1447(c)(1) of Title 14,
Code of Federal Regulations

Regulatory Docket No. 29401

PARTIAL GRANT OF EXEMPTION

By letters dated November 2, 1998, and December 14, 1998, Mr. Cole Eminger, Hollingsead International, Inc., John Wayne/Orange County Airport, 19300 Ike Jones Road, First Floor, Santa Ana, CA 92707, submitted a petition for exemption dated October 27, 1998, by Stephen R. Mosher, Hollingsead International, Inc.. This petition requests relief from the requirements of §§ 25.855(a), 25.857(e), and 25.1447(c)(1) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would permit the accommodation of up to 16 animal-handler supernumeraries in the aft portion of certain A300 airplanes modified to include a Class E cargo compartment.

The petitioner requests relief from the following regulations:

Section 25.855(e), as amended by Amendment 25-15, requires in pertinent part that cargo compartments must meet one of the class requirements of § 25.857. [The foregoing citation is based on the certification basis requirements of the A300 airplane, as referenced in Type Certificate Data Sheet (TCDS) A35EU. The petitioner erroneously cites the current § 25.855(a) as the section from which exemption is sought. Although the citations differ, the requirements from which exemption is sought in this instance are essentially the same.]

Section 25.857(e), as adopted into part 25, requires that a Class E cargo compartment is one on airplanes used only for the carriage of cargo and in which: (1) There is a fire-resistant lining; (2) There is a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station; (3) There are means to shut off the ventilating airflow to, or within, the compartment, and the controls for these means are accessible to the flight crew in the crew compartment; (4) There are means to exclude hazardous quantities of smoke, flames, or noxious gases, from the flight crew compartment; and (5) The required crew emergency exits are accessible under any cargo loading condition. [The foregoing citation is based on the certification basis requirements of the A300 airplane, as referenced in Type Certificate Data Sheet (TCDS) A35EU. The petitioner erroneously cites content of the current § 25.855(a) as the section from which exemption is sought. Although the citations happen to be the same in this instance, the requirements do differ but not in a manner relevant to this petition.]

Section 25.1447(c)(1), as adopted into part 25, requires that if certification for operation above 25,000 feet is requested, there must be oxygen dispensing equipment meeting the following requirements: There must be an oxygen dispensing unit connected to oxygen supply terminals immediately available to each occupant, wherever seated. If certification for operation above 30,000 feet is requested, the dispensing units providing the required oxygen flow rate must be automatically presented to the occupants. The total number of dispensing units and outlets must exceed the number of seats by at least 10 percent. The extra units must be as uniformly distributed throughout the cabin as practicable. [The foregoing citation is based on the certification basis requirements of the A300 airplane, as referenced in Type Certificate Data Sheet (TCDS) A35EU. The petitioner erroneously cites content of the current § 25.855(a) as the section from which exemption is sought. Although the citations happen to be the same in this instance, the requirements do differ but not in a manner relevant to this petition.]

Related Sections of the Federal Aviation Regulations (FAR):

Title 14, Code of Federal Regulations § 121.583(a) contains, in pertinent part, a listing of categories of occupants who may be carried aboard an airplane in part 121 service without complying with all the passenger-carrying airplane requirements of part 121.

The petitioner's supportive information is as follows:

“In accordance with the provisions of 14 CFR 11.25, Hollingsead International, Inc. of Santa Ana, California, hereafter designated ‘Hollingsead,’ hereby petitions the FAA for an exemption from compliance with the requirements of 14 CFR §§ 25.855(a), 25.857(e), and 25.1447(c)(1). The grant of this petition would allow the installation of a “groom station” with palletized seating provisions for up to 16 supernumerary occupants in the aft portion of the main deck cargo compartment of what would otherwise be a Class E main deck cargo compartment. This installation will be accomplished in conjunction with the conversion of Airbus A300 series aircraft from passenger to freighter configuration per STC ST00177LA-D. Hollingsead proposes to limit the occupancy of the groom station seats to animal handlers either accompanying a shipment of live

animals as allowed by 14 CFR 121.583(a)(4)(ii), or on an otherwise empty flight to or from a destination where live-animal cargo is delivered as allowed by § 121.583(a)(5). An AFM limitation will prohibit occupancy of these seats under any other conditions.

"SECTIONS OF 14 CFR AFFECTED

"14 CFR 25.855(a), Amendment 25-72 effective July 20, 1990:

'The compartment must meet one of the class requirements of § 25.857.'

"14 CFR 25.857(e), Amendment 25-60 effective May 16, 1986:

'A Class E cargo compartment is one on airplanes used only for the carriage of cargo... '

"Section 25.857(e)(2) through (5) further defines the specific requirements for a Class E cargo compartment. Exemption from compliance with these requirements is not requested.

"14 CFR 25.1447(c)(1), Amendment 25-41 effective July 18, 1977:

'There must be an oxygen dispensing system... ' If certification for operation above 30,000 feet is requested, the dispensing units providing the required oxygen flow must be automatically presented to the occupants before the cabin pressure altitude exceeds 15,000 feet. The crew must be provided with a manual means of making the dispensing units immediately available in the event of failure of the automatic system.

"APPLICABILITY

"The Hollingshead Designated Alteration Station (DAS) has issued Supplemental Type Certificate (STC) ST00177LA-D approving freighter conversion modifications to A300B4-2C, A300B4-103, and A300B4-203 airplanes. It is planned that other A300 series variants will be added to this STC as future customers modify additional airplanes. Therefore, the requested exemption should be applicable to the following A300 types per Type Certificate Data Sheet (TCDS) A35EU:

"Model B2-1A
Model B2-1C
Model B2K-3C
Model B2-203
Model B4-103
Model B4-2C
Model B4-203

"DESCRIPTION OF THE AIRPLANE TO BE MODIFIED AND COVERED BY THE REQUESTED EXEMPTION

"The Airbus A300 series are pressurized, transport category airplanes powered by two turbofan engines. These airplanes are listed on TCDS A35EU, first issued on May 30, 1974. The freighter conversion modifications to the subject airplanes include removal of the existing passenger interior, structural improvements to strengthen the floors and fuselage, revision of airplane systems, and the installation of cargo-handling equipment and other furnishings on the main deck to support all-cargo operations.

"As part of the freighter modification, provisions will be made for an optional "groom station" to be located in the main deck cargo compartment. The installation will consist of provisions for seating up to 16 supernumerary "persons." These accommodations will be equally distributed on two palletized seating units to be located in the most aft portion of the main deck cargo compartment. The two Type A cabin doors, one on either side of the aft fuselage, remain operable and will be equipped with escape slides to serve as emergency exits for the groom station seating area. An independent oxygen supply will be provided for the supernumerary occupants. Communication with the occupants of the groom station will be possible using the cabin interphone system and cabin address system. Appropriate lighted signs ("exit," "fasten seat belt," etc.) and passenger information placards will be positioned in the cargo compartment so as to be visible to all occupants. The supernumerary occupants will be provided with emergency equipment including fire extinguishers, life vests, spare oxygen cylinders with masks, and smoke goggles. Emergency lighting of the groom station area will be provided.

"Up to four additional supernumerary persons may be carried in a "courier module" located in the forward area of the main deck cargo compartment. The courier module installation has been previously FAA-approved under STC ST00178LA-D as a customer option in conjunction with the A300 freighter conversion. To permit this installation, the FAA granted exemption No. 6602, Docket No. 28669, on April 17, 1997. Occupancy of these seat positions, if installed, will continue to be open to all persons satisfying the requirements of § 121.583(a), independent of other limitations imposed with regard to occupancy of the groom station seats.

"The supernumerary occupants will perform a valuable function in support of live-animal transport operations. It is proposed to limit the occupancy of the groom station seats to animal handlers accompanying a shipment of live animals, as allowed by § 121.583(a)(4)(ii). Hollingsead proposes that transport of supernumerary persons occupying these seats also be permitted on an otherwise empty flight to or from a destination where live-animal cargo is delivered, as allowed by § 121.583(a)(5). The

Airplane Flight Manual (AFM) will contain a definition of the conditions under which these supernumerary persons may be carried, and provide specific instruction for preflight briefings. Hollingsead believes that an equivalent level of safety with the sections of 14 CFR part 25 from which relief is sought will be achieved by these instructions and by the incorporation of appropriate features in the design.

"EXTENT OF REQUESTED REGULATORY RELIEF

"The purpose of this petition is to permit the carriage of supernumerary persons on an all-cargo airplane. The requirements of part 25 for which exemption from compliance is sought are directly related to this request. Exemption from compliance with part 25 is sought to the following extent:

"Section 25.855(a): Relief is sought to permit non-compliance of the cargo compartment with one of the class requirements of § 25.857, due to the presence of seating for supernumerary persons in a cargo compartment.

"Section 25.857(e): Relief is sought to permit the carriage of up to 16 supernumerary persons in groom-station provisions in the main deck cargo compartment of an all-cargo airplane.

"Section 25.1447(c)(1): Relief is sought to permit the use of non-automatically presented oxygen equipment at the groom station, in conjunction with lighted signs and aural warning, in lieu of the automatically presented equipment with manual backup required by the referenced section.

"SUPPORTING ARGUMENTS

"1. Cargo operators have a requirement for a number of support personnel, necessary for the safe and/or proper handling of live-animal cargo, in flight and during the loading and off-loading processes. Such personnel are obviously required at both the departure and destination of a cargo flight, and efficient operations require that carriage of these persons be permitted on an otherwise empty airplane to or from a destination where live-animal cargo is delivered. The presence of specially trained personnel qualified to perform this function on the airplane is necessary to ensure safe and efficient operations.

"2. International Air Transport Association (IATA) Live Animal Regulations (LAR) are the industry standard for transportation of animals by air. This standard is also enforced as law in the European Union under EC Council Directive 91/628/EEC, as well as by other countries. For equine transport, a common application for which onboard animal handlers would be required, the IATA LAR suggests that, "one experienced groom is provided for each pallet of horses being shipped." It is noted that the IATA LAR further

states that, “when more than four pallets of horses are carried together, it is up to the discretion of the carrier in agreement with the shipper to determine the appropriate number of grooms (beyond 4) that are required.” A maximum of twenty 88” x 125” cargo pallets may be positioned in the main deck of the modified A300 series airplane. Assuming that two of these positions are to be occupied by the groom station seating provisions, 18 pallets of live animals may be loaded. Per the basic IATA guideline, 18 grooms could be considered an appropriate number, and may be a requirement of a prospective shipper. The proposed groom station, in conjunction with the existing optional forward “courier module,” will provide an adequate number of seats to satisfy this foreseeable requirement.

"3. Except for the sections from which exemption is sought, all design criteria of part 25 applicable to the carriage of passengers have been taken into account in the design of the groom station seating arrangement. The presence of the supernumerary occupants does not preclude compliance with § 25.857(e)(2) through (5), which contain the specific requirements for the cargo compartment.

"4. The requirements of part 25 take into account the carriage aboard commercial flights of:

" Crewmembers, including flight crew and cabin attendants, who are each assigned duties associated with the operation of the airplane, and;

" Passengers, some of whom have no expected ability to use the emergency provisions, and therefore must be attended.

"The persons who would occupy the groom station supernumerary seating area on the modified A300 series airplanes are trained aviation professionals. Furthermore, these personnel will be briefed in autonomous use of the emergency equipment, emergency exit operation, and evacuation. The operator will be required to limit access to these seats to those personnel who can perform these functions without assistance.

"ACTIONS TAKEN TO ENSURE EQUIVALENT LEVEL OF SAFETY

"In order to guarantee compliance with the conditions provided in support of this petition, Hollingsead will include an operating limitation in the FAA-approved AFM Supplement for the modified A300 series airplanes that restricts the total occupancy of the groom station. Seating will be permitted for up to 16 supernumerary occupants, designated by the operator, who satisfy the following requirements as delineated by §121.583:

'(a)(4) A person necessary for -

'(ii) The safe handling of animals, and;

'(a)(5) A person described in paragraph (a)(4) of this section, when traveling to or from an assignment.'

"The AFM limitation will further clarify that under no conditions will occupancy of the groom station seating area be permitted when any cargo other than live animals is being transported. Persons may occupy these seats on an otherwise empty flight to or from a destination where live-animal cargo is delivered. Additionally, each occupant must be found by the operator to have demonstrated the physical ability to autonomously use the emergency provisions. All occupants must be instructed by the operator, in accordance with FAA-approved procedures, on the autonomous use of the emergency provisions. All occupants will be orally briefed before each takeoff by an appropriate crewmember as to the location and use of the emergency exits and emergency equipment.

"Full compliance shall be maintained with all requirements of part 25 relative to Class E cargo compartments and the carriage of passengers, except as proposed in this petition for exemption. The following specific design features will be incorporated:

"1. The aircraft PA system will be capable of providing announcements throughout the main deck area, including the lavatory from the groom station seating area.

"2. Interphone capability will be provided between the flight deck and the groom station seating area.

"3. The existing evacuation signaling system will be retained in the aft main deck cabin to provide emergency egress notification to the occupants of the groom station seating area.

"4. Lighted "Fasten Seat Belt" signs operable by a flight crew member will be installed in a manner to be visible under all probable conditions of cabin illumination to all persons throughout the main deck area where supernumerary persons are permitted.

"5. Smoking will be prohibited at all times and in all locations in the main deck. "No Smoking" placards will be located so as to be visible throughout the main deck.

"6. Fire extinguishers meeting the intent of § 25.851 shall be provided. It is proposed to provide at least one suitably sized Halon 1211 fire extinguisher and at least one suitably sized water fire extinguisher.

"7. In lieu of the notification function normally provided by automatically presented oxygen masks, an aural alarm (hi-lo chime) through the cabin address system, in

conjunction with lighted “Don Oxygen Mask” signs will be used to inform the occupants when oxygen use is required. This function will be automatically actuated, with manual backup, in accordance with the intent of § 25.1447(c)(1). The aural alert will be audible, and recognizable in flight throughout the main deck area including the lavatory.

"8. Oxygen, consisting of one portable oxygen cylinder per person, will be provided to each occupant of the groom station seating area. The oxygen equipment will be located so as to be immediately available to each occupant. Each cylinder will be capable of providing oxygen for a duration in excess of the maximum emergency flight diversion time (60 minutes), and will be equipped with a gage indicating fill status of the cylinder. Additional oxygen cylinders will be provided as required by § 25.1447(c)(1). All oxygen cylinders provided for use in the groom station seating area will be provided with full-face, non-diluter type masks attached, to meet the intent of § 25.1439 for protective breathing equipment. As an option, non-diluter type masks, covering only the nose and mouth may be used if suitable accessories are provided to cover the eyes (i.e., smoke goggles).

"PUBLIC INTEREST

"The public stands to benefit from the granting of the requested exemption. The carriage of supernumerary persons aboard the modified A300 series all-cargo airplane will lead to increased efficiency and a higher level of operational safety. The utility of the cargo airplane will be improved, and the operators will benefit from substantial cost savings in the transportation of personnel in support of live-animal transport operations. The content of this petition for exemption is similar to those for which the FAA has previously granted exemptions. Hence, precedent would not be established by granting the requested exemption. Therefore, the granting of the requested exemption will be in the public interest, as required by § 11.27(e)."

A summary of the petition was published in the Federal Register on March 19, 1999 (64 FR 13627). No comments were received.

The FAA's analysis/summary is as follows:

Section 121.583 recognizes a “person” category of occupant, as distinct from “passenger” or “crew” occupants addressed in 14 CFR part 25. Section 121.583 allows non-compliance, for operational purposes only, with certain part 121 requirements normally pertinent to passenger-carrying airplanes, passenger-carrying operations, and passenger requirements. These “persons” are commonly referred to as supernumeraries. Supernumeraries are a special class of occupant, by virtue of certain knowledge and abilities attributed to them through selection and mandatory training. The resulting enhanced capabilities of supernumeraries, over that which can be expected of passengers, allows exemption in certain instances from selected type design requirements that are normally imposed for the safety of ordinary passengers. In all cases, however, the desired end result is the retention of all passenger safety features to the maximum extent

reasonable, when all factors are considered, and an overall level of safety for supernumeraries that is comparable to that afforded to passengers.

Part 25 does not address “persons.” Therefore, regardless of any part 121 provisions affecting operations, in order to modify part 25 transport category airplanes by installing supernumerary accommodations that do not comply with part 25 certification requirements for passengers, it is first necessary to petition for and obtain exemption from the affected part 25 requirements. To date, the FAA has processed, generally favorably, a number of petitions for exemption associated with the installation of supernumerary accommodations, provided there was a public interest in doing so, and certain conditions were met to assure an adequate level of safety. Those conditions have varied, depending on the airplane design, the nature of the proposals under consideration, and the number of persons involved. In most instances, these petitions have addressed accommodations for only a few supernumeraries, located immediately aft of the flight deck, which is a scenario reasonably consistent with that thought to be envisioned during the promulgation of § 121.583. Although no documentation can be located which definitively discusses the intended scope or quantities of supernumerary persons envisioned during the promulgation and subsequent revisions of § 121.583, neither is there any indication that it was intended that “large” numbers of supernumeraries, fulfilling functions not related to the flight event, and located other than in close proximity to the flight deck, be permitted.

It is with some concern, therefore, that the FAA has noted a trend toward proposals for rather more ambitious accommodations, with the extant example being accommodations for up to sixteen animal handlers at the aft portion of a main deck Class E cargo compartment on large Airbus A300 airplanes. The FAA is concerned with ensuring that the spirit of the provisions of § 121.583 is not being violated at some point, that supernumerary occupants of cargo compartments are afforded a level of safety that is reasonably consistent with that required to be provided to passengers, and that there is a public interest in granting the exemptions sought.

The FAA considers the petitioner’s supporting documentation and arguments reasonable, relative to the maximum quantity (i.e., 16) of grooms which may be accommodated at the rear-most portion of a Class E cargo compartment onboard the A300 airplane, and who are dedicated for attending to the proposed number of live-animal pallets. Accordingly, the FAA grants the petition relative to this desired number of supernumeraries on the indicated airplanes. However, relative to the petitioner’s proposal to accommodate previously FAA-accepted (by Exemption No. 6602) supernumeraries in a forward-located “courier station” concurrently with the 16 animal handlers which are the subject of the extant petition, the FAA responds that this configuration is acceptable only to the extent that all terms and conditions of Exemption No. 6602 are observed, as well as all terms and conditions of this extant exemption. The conditions and limitation of Exemption No. 6602 are listed at the end of this exemption.

The design requirements for airplanes with a Class E cargo compartment are predicated upon implementation of the cabin decompression procedures required by § 25.857(e)(3)

to control a fire until a landing can be effected. Accordingly, existing Airbus A300 Airplane Flight Manual (AFM) procedures pertinent to a main deck Class E cargo compartment, which include raising the cabin altitude to address formal compliance with this requirement, remain applicable, or if necessary, need to be established to the satisfaction of the cognizant FAA Aircraft Certification Office (ACO), and shall be a condition of this exemption.

As a related condition of this exemption, substantiation shall be provided to the satisfaction of the cognizant FAA ACO that sufficient supplemental oxygen is available for all intended occupants at the elevated cabin altitudes prescribed as discussed above, for the maximum anticipated flight durations under those conditions.

Finally in this regard, the petitioner's proposal is not entirely clear relative to intentions for ensuring that supplemental oxygen is immediately available to supernumeraries who may be away from the seating area if/when a decompression event occurs or is initiated, or who may have duties away from the seating area subsequent to a decompression. Accordingly, it is a condition of this exemption that a gaged source of supplemental oxygen with full-face non-diluter masks, in addition to being provided at the seating area as proposed, shall also be immediately available to each and all supernumerary occupants throughout the cargo compartment where access is permitted. It is anticipated that the same equipment may be employed, as both carry-around and for use while seated, to comply with this condition.

Exercising the terms of this exemption for the accommodation of grooms on the main deck is not authorized, except while transporting either no cargo whatsoever or with live-animal cargo exclusively, and is a condition of this exemption.

The petitioner's proposal that communication between the flight deck and the supernumeraries is "possible" by using the interphone and PA system is acceptable, providing, as a condition of this exemption, that that equipment is accessible and operable by at least one seated supernumerary.

In reviewing the petition, the FAA notes the petitioner's statement that, "...all design criteria of part 25 applicable to the carriage of passengers *have been taken into account...*" (emphasis added). The FAA considers this statement to be somewhat less definitive than one declaring compliance with all pertinent sections of 14 CFR pertaining to the carriage of passengers. Accordingly, this partial grant of exemption shall be understood to address only the specific sections from which exemption is sought, and necessarily assumes that all other pertinent passenger safety requirements of part 25 have been complied with to the satisfaction of the cognizant FAA ACO.

Finally, accommodating any occupants at all in what would otherwise be a Class E cargo compartment means that this cargo compartment no longer complies with any cargo

compartment designation. Technically, that would be a violation of § 25.855(e), which requires that all cargo compartments comply with one of the designated classifications. Accordingly, given the FAA's acceptance, generally, of the petitioner's proposals as addressed above, exemption from this technical requirement of § 25.855(e) is necessarily granted.

The conditions and limitations from Exemption No. 6602 are listed below:

1. The airplane flight manual must contain a limitation that supernumerary occupancy outside of the flight deck is restricted to a maximum of four persons;
2. Occupants are limited to the categories specified in § 121.583(a)(1) through (7);
3. Prior to each flight, each occupant must be briefed by a flight crewmember on the use of the exits and emergency equipment; and
4. The operator must determine that each occupant is physically able to accomplish the necessary emergency procedures.

In consideration of the foregoing, I find that a partial grant of exemption is in the public interest and will not significantly affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 40113 and 44701, delegated to me by the Administrator (14 CFR § 11.53), Hollingsead International, Inc., is hereby granted an exemption from the requirements of §§ 25.855(e), 25.857(e), & 25.1447(c)(1) of 14 CFR. The petition is granted to the extent required to permit supplemental type certification of Airbus A300 airplane models B2-1A, B2-1C, B2K-3C, B2-203, B4-103, B4-2C, and B4-203 modified to include a main-deck Class E cargo compartment, to provide accommodations for up to a maximum of 16 supernumerary occupants acting as grooms to attend to live-animal cargo, in a Class E cargo compartment, with the conditions as defined in the FAA's analysis/summary section.

Issued in Renton, Washington, on June 6, 2000.

/s/ Donald L. Riggin
Donald L. Riggin
Acting Manager
Transport Airplane Directorate
Aircraft Certification Service, ANM 100